

22B – Implementing Process Architecture

Presenter

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Session Summary

The role of a Process Architect has grown into a mandatory part of software corporate culture. What are the responsibilities of a Process Architect? How similar they are to a Software Architect? The book by Ralph Malveau, *Software Architect Boot Camp* addresses these areas:

1. It starts with the survival skill, which might be an appropriate introductory point to a discussion.
2. Roger Pressman talks about importance of an explicit design representation, which is contrary to the informal, implicit, accidental one.
3. CMMI (Capability Maturity Model Integrated) defines architecture as an interconnection among standard process elements.

The session covers the following areas:

- Attributes of a Process Architecture - The following checklist serves as audit criteria during regular architectural reviews.
 - 1) One Architecture: A structure built of a predefined set of process elements, policies, templates, etc. There are no artifacts that are outside of a defined architecture.
 - 2) Consistent: Patterns are repeated throughout the structure.
 - 3) Traceable: Assets are traceable through levels.
 - 4) Flexible: Expandable, scalable, systematically improved, supporting regular releases of artifacts' bundles.
 - 5) Linkable: Other asset libraries are linked.
 - 6) Taxonomy: Includes a definition of concepts, terms, and vocabulary.
 - 7) Used: Applied, instantiated, relevant to all projects.
 - 8) Auditable: Complied with relevant industry standards (e.g. CMMI, ISO).
- Processes that fit into architecture and those that do not fit Architect Role Description Common examples:
 - 1) A familiar pyramid constructed of process elements (e.g. policies, procedures, best practices, etc.). This is the representation of an architectural concept.
 - 2) The Process Asset Library (PAL) should fully support the architecture and implement this abstract concept.

For example, if Procedures of the Pyramid are linked to Best Practices, then PAL is expected to selectively hyperlink specific best practices to specific procedures.

It is also important to conceptualize how the Process Architecture fits into the overall organization.

- Implementation and Maintenance
 - 1) It is not enough to define architecture.
 - 2) It is equally (or even more) important to remain focused and on track, and to make sure all projects comply.

About the Presenter – Alex Elentukh

Alex Elentukh, Sr. Engineering Program Manager, Process Architect, [Computer Associates Corp.](#) Alex is a Principal of [Software Process Multimedia, Inc.](#), a consulting firm specializing in helping organizations with their process programs. During his 25-year career, Alex has held positions in several major corporations. While serving as a QA Director at Intel, Alex led a team of test engineers. At Motorola, he was a part of a

QA group deploying the Six Sigma methodology. At Fidelity Systems Company, he improved the organizational maturity using SEI CMMI framework. As an ISO Auditor, Alex worked for Perry Johnston Registrar. He has authored numerous papers on quality and reliability, and has taught at Northeastern University and Boston University.